Appl. No. 10/596135
Final Amendment and/or Response
Reply to final Office action of 18 July 2008

Reply under 37 CFR 1.114

Page 8 of 10

REMARKS / DISCUSSION OF ISSUES

Claims 1-26 are pending in the application. Independent claims 1, 11, and 12 are amended herein, and claims 21-26 are newly added. The amendment to claims 1, 11, and 12 finds support at page 2, line 30 – page 3, line 2, and the newly added claims find support at page 2, lines 5-20. No new matter is added.

The Examiner rejects claim 11 under 35 U.S.C. 101. Claim 11 is amended herein to specifically recite a non-transitory computer-readable medium. Reconsideration of this rejection is respectfully requested.

The Examiner rejects claims 1-20 under 35 U.S.C. 102(e) over Tsui et al. (USPA 2007/0163425, hereinafter Tsui). The applicant respectfully traverses this rejection in view of amended independent claims 1, 11, and 12, upon which the other claims depend.

Each of claims 1, 11, and 12 has been amended to specifically recite that each sub-string of the query string comprises a plurality of notes.

Tsui fails to disclose decomposing a query string that corresponds to an encoding of an audio fragment into a plurality of query sub-strings, each query sub-string comprising a sequence of a plurality of notes; fails to disclose independently searching a melody database for at least a respective closest match for each sub-string of the plurality of query sub-strings; and fails to disclose determining at least a closest match for the query string in dependence on search results for the respective sub-strings, as specifically claimed in amended claim 1. Claims 11 and 12 include similar features.

As acknowledged by the Examiner, Tsui's "melody-to-note conversion subsystem converts the digitized input melody (as a *query string*) into a sequence of musical notes (as *sub-strings*) characterized by pitch, beat duration and confidence levels ([0042], lines 1-4)" (Office action, page 5, lines 2-5). Additionally, Tsui's matching apparatus is specifically termed a "Note matching engine" 16 in FIG. 1

Appl. No. 10/596135
Final Amendment and/or Response
Reply to final Office action of 18 July 2008

Reply under 37 CFR 1.114

Page 9 of 10

Tsui does not disclose a plurality of sub-strings of a query string, wherein each sub-string comprises a plurality of notes. Tsui decomposes the query string into a single sequence of individual notes; Tsui does not partition this single sequence of notes into a plurality of sub-sequences of notes. For each query string there is one, and only one, sequence of notes in Tsui (the differential note and timing file 150), and this single sequence of notes 150 is compared to all of the songs in the database 14, on a note-by-note basis by the note matching engine 16 to determine the closest matching song.

As disclosed by the applicant, the query string is partitioned into a plurality of sub-strings, corresponding, for example, to 'phrases' of a song, and an independent matching to each of these phrases is used to determine which song best matches the query string.

In conventional systems, such as the system of Tsui, the absence of a phrase, or the juxtaposition of phrases, in the query string will generally cause the matching process to fail, because the incorrect sequence of notes in the faulty query string will not match the correct sequence of notes in the searched-for song. Without an intermediate partitioning of a query string into multi-note sub-strings, as taught and claimed by the applicant, it is virtually impossible for Tsui to find the desired song using a query string with missing or juxtapositioned phrases.

By searching the database of songs for matching phrases (sub-strings) of a query string, as taught and claimed by the applicant, rather than searching for a match to the entire query string, as taught by Tsui, missing or juxtapositioned phrases will not affect the sub-string matching results. If most of the sub-strings of the query string match corresponding sub-strings within a particular song, that song is likely to be the song that is being sought, independent of the fact that the query string might have had missing or juxtapositioned phrases.

Appl. No. 10/596135
Final Amendment and/or Response
Reply to final Office action of 18 July 2008

Reply under 37 CFR 1.114

Page 10 of 10

Because Tsui fails to disclose decomposing a query string that corresponds to an encoding of an audio fragment into a sequence of a plurality of query sub-strings, each query sub-string comprising a plurality of notes; fails to disclose independently searching a melody database for at least a respective closest match for each sub-string of the plurality of query sub-strings; and fails to disclose determining at least a closest match for the query string in dependence on search results for the respective sub-strings, the applicant respectfully requests the Examiner's reconsideration of the rejection of claims 1-20 under 35 U.S.C. 102(e) over Tsui, and subsequent allowance of these claims and newly added claims 21-26.

In view of the foregoing, the applicant respectfully requests that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application to be in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

/Robert M. McDermott/
Robert M. McDermott, Esq.
Reg. 41,508
804-493-0707

Please direct all correspondence to:
Corporate Counsel
PHILIPS IP&S
P.O. Box 3001
Briarcliff Manor, NY 10510-8001